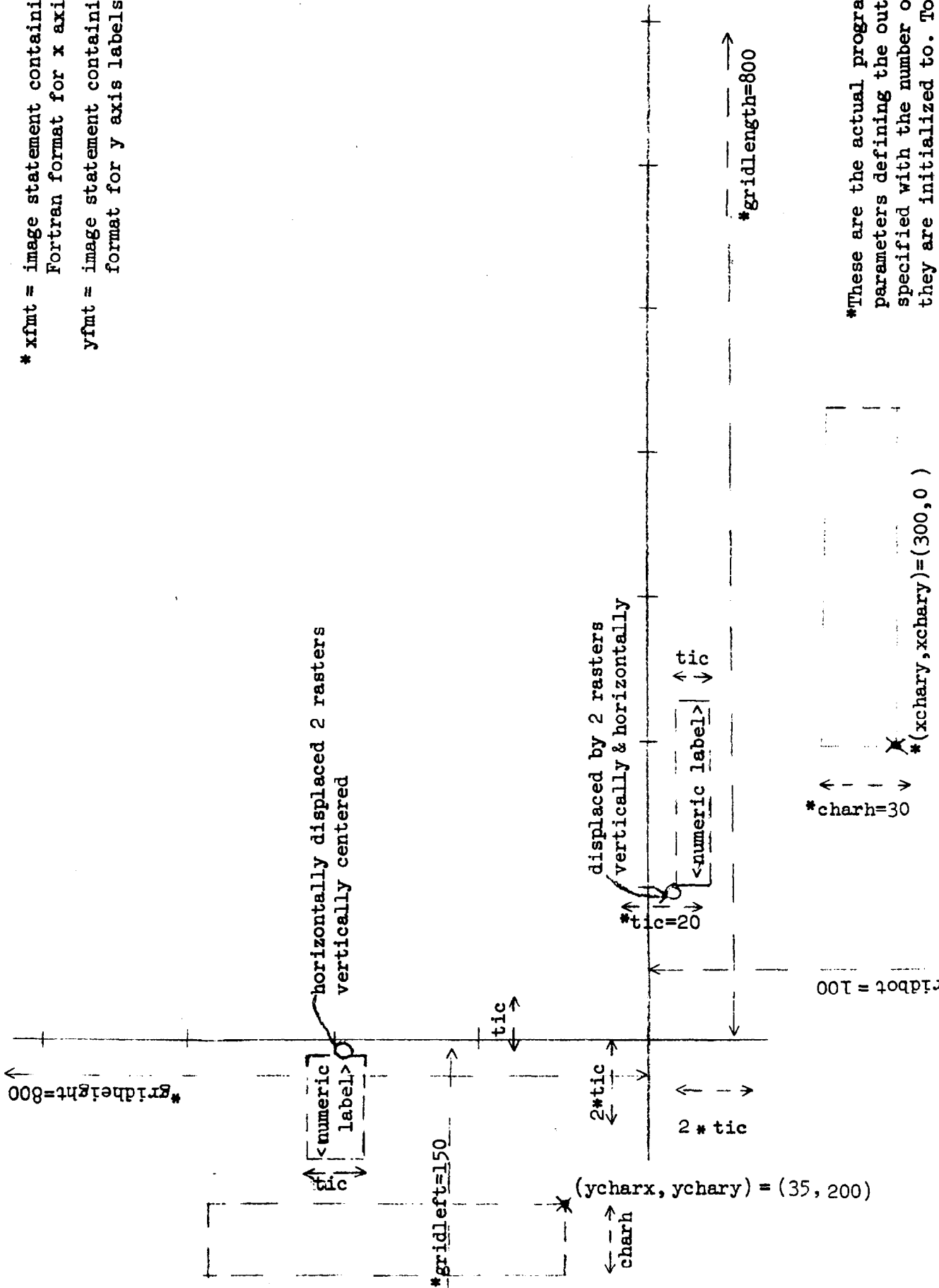


Format for displaying filter and spectrum

```
* xfmt = image statement containing
      Fortran format for x axis labels
      yfmt = image statement containing Fortran
              format for y axis labels
```

```
<optional description of spectrum>
(tcharx, tchary)=(center, 935)
```



*These are the actual program names of parameters defining the output format, specified with the number of rasters they are initialized to. To modify these settings, change the first declaration at the beginning of ARSPEC.

Core Research & Development (Continued)

D. Miscellaneous Core Projects

For descriptions of the other projects which had core research status during FY73, see the Summary of Computer Resource Usage, Categories 5 and 6, in Section VII of this report.

VI. BUDGET

The budget section of this annual report is divided into the following topics:

- A. Resource Expenditures
- B. Expenditure Details
- C. Summary of Resource Funding
- D. Resource Equipment List
- E. Income Statement for 12-Month Period Ending April 1973

Fiscal year 1973 direct costs will be \$800,000. This will be offset by approximately \$260,000 in income from service fees. These figures exclude costs associated with providing terminal services to users and the income received through terminal service fees.

Section E indicates that income of \$289,000 was received from users in the 12-month period ending April 1973, compared to prior year income of \$230,000. The terminal service fees accounted for approximately \$100,000 in additional income during each of these two years; roughly one-half of this sum was spent for terminal rentals while the balance has been used to provide services best offered from a central point and to support new communications gear for use of the 370/158 facility.

A. Resource Expenditures

SUMMARY

Total Resource Expenditures			
	05 year	06 year	06S year*
	(8/1/70- 7/31/71) Budget Period	(8/1/71- 7/31/72) Budget Period	(8/1/72- 7/31/73) Budget Period
1. Personnel:			
a. Salaries & Wages	239,329	244,023	278,422
b. Staff Benefits	32,851	36,814	44,377
Subtotal	272,180	280,837	322,799
2. Consultant Services	912	508	--
3. Equipment			
a. Main Resource-Rented	384,542	385,926	383,862
b. Main Resource-Purchased	40,843	61,218	36,371
c. Supporting Equipment	1,951	1,259	1,260
d. Equipment Maintenance	6,145	14,764	14,500
Subtotal	433,486	463,167	435,993
4. Supplies	15,873	9,251	5,800
5. Travel	3,047	2,138	4,000
6. Engineering Services	11,818	25,236	12,700
7. Publications Costs	3,031	4,608	6,000
8. Other			
a. Computer Services (1)	8,272	3,250	5,900
b. Other	9,531	11,243	12,100
Subtotal	17,803	14,493	18,000
9. Subtotal - Direct Costs	758,150	800,238	805,292
10. Indirect Costs	141,205	103,120	65,196 (2)
11. Total Costs	899,355	903,358	870,488

(1) Includes education courses

(2) Assumes \$403,561 exempt equipment costs
and user income of \$260,000

* 06S refers to one year extension

B. Expenditure Details

DIRECT COSTS ONLY

	06 year August 1, 1971- July 31, 1972	06S year August 1, 1972- July 31, 1973
1. Personnel		
Director's Office	32,928	28,391
Systems Analysis	2,758	7,748
Systems Programmers	91,263	86,907
Applications Programmers	37,631	50,428
Research Assistants	9,094	5,227
Operations	56,588	59,185
Secretarial & Administrative	13,761	14,674
I.R.L. Support Personnel		25,862
Subtotal, Salaries	244,023	278,422
Staff Benefits	36,814	44,377
TOTAL PERSONNEL	280,837	322,799
2. Consultant Services	508	---

B. Expenditure Details

DIRECT COSTS ONLY

August 1, 1971-
July 31, 1972

August 1, 1972-
July 31, 1973

3. Equipment

Major Equipment

1052	Console Typewriter	635	635
1403	Printer 600 LPM	8,397	8,397
2050	Additional CPU (F)	99,955	101,297
2314 #1	Dir. Access Storage	21,466	---
2314 #2	Dir. Access Storage	19,988	---
2361	Core Storage	27,291	---
2401	Mag. Tape Unit	3,377	3,377
2403	Mag Tape Unit Control	8,971	8,971
2540	Card Reader Punch	6,947	7,157
2701	Data Adapter Unit	10,561	10,728
2702	Transmission Control	13,162	---
2821	Control Unit	10,937	10,937
	Amplex DC 314	20,068	38,642
1	Amplex DC 314	22,243	36,304
	Amplex ECM-50	77,949	119,922
	Memorex 1270	2,967	16,248
Subtotal		354,914	362,615
Disk Pack Rentals (25/25)		2,333	2,484
Terminals Rentals (10/6)		10,767	7,900
IBM 1800 add. units			
1442		2,638	2,671
1826		7,691	7,691
1856		1,791	1,791
Subtotal, 1800		12,030	12,963
Unit Record 029		1,259	1,260
Data Set and Line Rentals		5,882	< 1,200 >*
TOTAL, MAIN RESOURCES AND SUPPORTING EQUIPMENT RENTALS		381,303	386,322

* Reflects corrections of charges mistakenly placed on Grant account for graphics communication services.

B. Expenditure Details

DIRECT COSTS ONLY

	August 1, 1971- July 31, 1972	August 1, 1972- July 31, 1973
Purchased Equipment		
RPQ's for Beehive Terminals	381	
PDP-11 System	38,237	
DEC Dual Tape Systems	7,450	
Computer Terminals (4)	15,150	
1200 Baud modems (2 + power supply)		438
Sale of Beehive Terminals & Interfacing		< 8,975 >
Printer for Beehive CRT/PDP-11		3,570
Computer Terminals (5)		16,013
Equipment for PL/ACME follow on system*		25,325
Subtotal Purchased	61,218	36,371
Maintenance (Under outside contract)	14,764	14,500
Total Equipment	463,167	435,993

* Some money has been shifted from other budget categories to permit purchase of equipment needed to provide follow-on PL/ACME services. More detail is presented on separate correspondence to NIH.

B. Expenditure Details
DIRECT COSTS ONLY

	August 1, 1971- July 31, 1972	August 1, 1972- July 31, 1973
4. Consumable Supplies		
Office	2,220	1,600
Computer	7,031	4,200
Subtotal, Consumable Supplies	9,251	5,800
5. Travel		
BREITBARD Philadelphia to Stanford for job interviews, 10/3		336
CLASS FJCC, Anaheim, 10/5-7		68
FREY SHARE Interim Meeting, San Diego, 12/3-6		135
SHARE XXXIX Conference, Toronto, 8/7-11		531
IBM Course, San Francisco 8/28-9/1		24
SHARE XL, Denver 3/6-9		315
GERMANO IBM Course, San Francisco, 12/18-19		18
GRANIERI IBM Course, San Francisco, 11/28-30		29
HEATHMAN IBM Course, San Francisco, 11/28-30		23
IIU Visit Computer Transmission Corp, Los Angeles, 3/15		39
JAMTGAARD ACM SIGBIO and SIGGRAPH and FJCC, Anaheim, 12/3-5		192
Univac Corp. for "Exec 8" demo., San Francisco, 11/9		9
Visit NIH/BRB and DRG, Washington, D.C., 1/31-2/2		427
MILLER IBM Course, San Francisco, 11/13		7
IBM Courses, San Francisco, 9/26-27, 10/3-5		35
STANTON FJCC, Anaheim, 12/3-5		153
IBM Class, Portland, Ore., 10/16-20		208
Assist in display at International Transplant Conference, San Francisco, 9/25-29		19
Visit Computer Transmission Corp., Los Angeles, 3/15		33
WHITNER Sixth Annual Symposium on the Interface Workshop, Berkeley, 10/16-17		25
WIEDERHOLD SHARE, San Diego, FJCC, Anaheim, 12/3-6		248
ACM National Conference, Boston, 8/11-16		242
Visit U.C. Med. Ctr., San Francisco, 8/17		10
All Other Travel		874
Subtotal, Travel	2,138	4,000

August 1, 1971-
July 31, 1972

August 1, 1972-
July 31, 1973

6. Engineering Services	25,236	12,700
7. Publication Costs	4,608	6,000
8. Computer Services		
360/67 & Tymshare Services	2,615	2,000
Staff Training	635	3,900
Subtotal, Computer Services	3,250	5,900
9. Other Expenditures		
Books and Periodicals	407	200
Postage and Freight	1,698	2,000
Telephone	6,673	6,400
Physical Plant	115	300
Technical Services	1,322	3,000
Misc	1,028	200
Subtotal, Other	11,243	12,100
GRAND TOTAL -- DIRECT COSTS	800,238	805,292

C. Summary of Resource Funding

	BUDGET PERIODS		
	05 Budget Period	06 Budget Period	06S Budget Period
Source of Funds			
Computer Service Fees	170,596	266,805	260,000
Biotech, Resources Branch Support			
Amount of Current Award:			
Line (5) of Award Statement	675,747	633,379	475,158
Adjustment from Prior Periods:			
1. Balance from prior budget periods	76,459	3,174	87,857
2. Balance of 270 x/y Proceeds < 27,275 >			5,292
Additional Funding Required*			42,181
Total BR Support	724,931	636,553	610,488
TOTAL FUNDING	895,527	903,358	870,488

* A request for additional funding support has been forwarded to NIH.

D. Resource Equipment List

RENTAL EQUIPMENT

360/50 Configuration

TYPE-SERIAL	DESCRIPTION	RENTAL START DATE	MONTHLY RATE	E/A%	EDUCATIONAL ALLOWANCE	TAX	NET RENTAL
IBM:							
1052-50618	Console Typewriter	12-13-66	63.00	20	12.60	2.52	52.92
1403-14708	Printer 600 LPM	"	833.00	20	166.60	33.32	699.72
2050-11047	Additional CPU (F)	"	1,660.00	25	415.00	62.25	1,307.25
2050-11047	CPU	"	10,453.00	35	3,658.55	339.72	7,134.17
2401-10877	Mag. Tape Unit	"	335.00	20	67.00	13.40	281.40
2403-70738	Mag. Tape Unit Control	"	890.00	20	178.00	35.60	747.60
2540-12531	Card Reader Punch	"	710.00	20	142.00	28.40	596.40
2701-11144	Data Adapter Unit	"	1,025.00	20	205.00	41.00	861.00
2821-12464	Control Unit	"	1,085.00	20	217.00	43.40	911.40

MEMOREX:

1270-10378	Control Unit	5-23-72	1,290.00	--	--	64.50	1,354.50
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AMPEX:

DC 314-034	Dir. Access. Stge.	12-20-71	3,127.80	--	--	123.39	3,251.21
DC 314-037	Dir. Access. Stge.	1-13-72	2,907.00	--	--	118.35	3,025.35
ECM 50-1222	Core Storage	12-08-71	9,545.00	--	--	448.50	9,993.50

360/50 Configuration Total

			33,958.82		5,065.25	1,355.93	30,249.50
--	--	--	-----------	--	----------	----------	-----------

D. Resource Equipment List

RENTAL EQUIPMENT (Cont.)

Supporting Equipment Rentals

TYPE-SERIAL	DESCRIPTION	RENTAL START DATE	MONTHLY RATE	E/A%	EDUCATIONAL ALLOWANCE	TAX	NET RENTAL
25 units 911	Disk Pack (3M)	5-17-71(@ 7.88)	197.00	--	--	9.85	206.85
3 units	IBM 2741 Communication Terminal	various	319.50	20	63.90	12.78	268.38
3 units	G.E. Terminet Communication Terminal	various	354.00	--	--	17.70	371.70

1800 Rental Equipment

1826-10152	Data Adapter Unit	9-22-66	763.00	20	152.60	30.52	640.92
1442-70295	Card Read Punch	"	265.00	20	53.00	10.60	222.60
1856-10607	Analog Output Terminal	6-24-70	150.00	10	15.00	6.75	141.75

Other Rented Equipment

Card Punch	IBM (Model 029/P4202)	9-21-70	111.00	10	11.10	5.00	104.90
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3. Resource Equipment List

PURCHASED EQUIPMENT

Period Covered -- 8/1/67-4/30/73

DESCRIPTION/IDENTIFICATION	MANUFACTURER	MODEL NO.	PURCHASE PRICE	SOURCE OF FU
1800 System	IBM	1801		Genetics I.R.L
Process Controller	"	1816		
Printer Keyboard	"	1828		
Enclosure	"	1851	2,908.00	
Analog Input Terminal	ACME			SRR
Digital Display	Hewlett-Packard			Macy Grant
Oscilloscope	E.H. Research Labs	1398	1,500.00	Macy Grant
Pulse Generator	IBM	28	1,275.00	
Conversion 1801	Digital Equipment	PDP-11	18,753.00	
PDP-11 System	Tektronix	547	17,891.00	
Oscilloscope	Litton Industries	30	3,253.00	
Printer	Prentice	800/LDA-1	4,053.00	
Module/Packs	Wavetek	130	2,972.00	
Oscillator/Generator	Prentice	d22	309.00	
Couplers (2)	Prentice	LDA 1	939.00	
Module	Prentice		383.00	
Cabinet	Prentice		4,182.00	
Disk Drive System	Digital Equipment	RK11 CA/RK03AA	15,332.00	
Sampling Unit	Tektronix	Type 152	1,767.00	
PDP-11 System	Digital Equipment	PDP-11	38,446.00	
DEC Dual Tape System	Digital Equipment		7,450.00	
Computer Terminal (2)	Computer Transceiver Corp.	311	7,645.00	
Computer Terminal (2)	General Electric	Terminet	7,505.00	
Modems (2)	Prentice	LDA-1 with power supply	438.00	

VII. UTILIZATION DATA

A. Interpreting Utilization Charts.

The terms used to discuss ACME utilization involve charging units and categories of users.

1. Charging Units

Last year, the computer service charge units were:

- pageminutes
- terminal connect time
- blocks of disk storage
- terminal service charge

A pageminute is defined as occupancy of 4096 bytes of core for one minute. Terminal connect time is the total number of minutes that a terminal is connected to the system in a logged-on condition. A block of disk storage is a fixed-length block of 2000 bytes of 2314-type disk storage. The terminal service charge covers monthly terminal rent plus other services offered by the ACME staff. This service charge is handled by the University independent of the ACME grant.

2. User Categories

The table below shows the category identifier, definition, and rate of each user category. The rate charged per pageminute varies by user category, and some categories are subsidized 100% by the ACME grant. An asterisk next to the category identifier designates those so subsidized. All other categories are paying. There is a distinction between realtime and non-realtime users. Realtime users use the 1800 processor or 2701 data adapter for data collection or process control functions.

PAGE-MINUTE CHARGE TABLE

Category	cents/pageminute
1. Realtime User - Sponsored Research	1.00
2. Non-Realtime User - Sponsored Research	1.70
3. Non-Stanford Medical	2.50
*4. Medical Students	2.00
*5. Realtime User - Core Research	2.00
*6. Non-Realtime User - Core Research	2.00
*7. ACME Staff - Excluding Operations	2.00
8. Hospital Data Processing	1.70
9. Non-Medical - Stanford and Non-Stanford	2.00

Page-Minute Charge Table (Continued)

*10.	Realtime - Pilot and Pending Proposal	2.00
*11.	Non-Realtime - Pilot and Pending Proposal	2.00
*12.	Realtime - Extended Non-Funded	2.00
*13.	Non-Realtime - Extended Non-Funded	2.00
16.	Negotiated Rates - Combination of Core Research and Medical Administration	1.20
*17.	ACME Operations	2.00

*No cash charges, i.e., absorbed by the ACME project budget.

B. Patterns of Use.

Approximately 2/3 to 3/4 of the terminals logged-on to the system are in execution at any point in time. This is consistent with a level achieved one year ago. Somewhat fewer terminals are logged-on each day in recent months. This reflects the fact that more people are being charged for their utilization. It also reflects the fact that fewer new users have been recruited this year due to the uncertainty of PL/ACME's future. The number of terminal hours did not decrease significantly despite the increase in the number of 30-character-per-second terminals. Subjectively, it appears to the facility director that much of the utilization today is based upon programs written during the past three or four years. Perhaps as many as 50% of the users rarely write new programs for data entry and data analysis.

During the past year approximately 85% to 90% of the available disk storage for users has been used. Frequently we have run out of space on individual disk packs during the normal operating hours. This has caused considerable inconvenience to all users. One additional disk drive was added to the system this year to alleviate the problem.

The Utilization by Department table indicates considerable usage by the Computer Science Department. The DENDRAL project accounts for essentially all of this usage.

The final table in this section presents a summary of all utilization by all users during the year. On this table, the designation "C" (collaborative) indicates that the project (1) received programming services greater than normal consulting, (2) was accommodated by special changes to the system by the ACME staff, or (3) was involved in a normal research collaboration relationship with ACME.

ACME UTILIZATION BY DEPARTMENT

Twelve-Month Period May 1972 - April 1973

*Distribution is that of April 1973.

Department/Division	# of Terminals*	PAGES/MINUTES		BLOCKS		TOTAL CHARGE	
		students	non-chargeable	students	non-chargeable	students	non-chargeable
MEDICAL SCHOOL							
Anesthesia	1.25	-0-	43,149	10	608	\$ 1.00	\$ 944.09
Biochemistry	1.00	957		125		61.94	\$10,178.89
Community and Prev Med							2,345.24
Biostatistics	.62		8,031			42	143.74
Dermatology			58,718			7,105	1,747.89
Genetics			-0-			60	6.00
Gyn/Ob	5.00	129,117	732,695	5,542	45,707	3,208.95	18,770.02
Medical Microbiology	1.00	88,933				4,892	16,215.71
Medicine						6,280	3,319.74
Cardiology						2,163.16	2,493.08
Clinical Pharmacology	1.00	14,126				420.24	1,601.00
Gastroenterology							2,163.16
Hematology							11,289.21
Immunology	1.00		293,856	1,337	12,352	5,368.90	689.30
Infectious Diseases							1,785.04
Metabolism	4.63	14,512		1,927		488.16	6,427.23
Nephrology		-0-		38		3.80	344.80
Oncology	.50	-0-		840		84.00	17,090.32
Respiratory Medicine		2,554		114		62.97	794.98
Neurology	1.00		501,650		16,669	8,119.55	1,375.53
Pathology	1.00						175.08
Pediatrics							3,755.28
Pharmacology	2.00	162,081	-0-	6,003	540	3,975.98	5,201.63
Physiology		9,152		85		194.85	9,742.58
Psychiatry	2.00	25,459		377		551.01	
Radiology		92,722	2,004	12,362	1,796	3,138.59	220.91
Diagnostic Radiology	.50						8,379.40
Nuclear Medicine	1.00		279,446		7,773	4,476.48	6,707.58
Radiation Therapy	1.00						4,631.99
Radiobiology	.50						2,880.46
Surgery	1.00						14,651.02
Cardiovascular							2,208.55
Ophthalmology							377.95
Otolaryngology							3,134.24
Urology							863.90
Admissions Committee							1,247.87
Fleischmann Labs							1,508.77
Joint Teaching and Research	.50						1,837.26
Regional Medical Program	1.00						4,911.61
MEDICAL SCHOOL TOTALS	27.50	591,779	1,980,114	57,899	86,690	\$15,902.96	\$40,650.06
							\$157,816.17

Department/Division	# of Terminals *	PAGES/INUTES		BLOCKS		TOTAL CHARGE	
		students	non-chargeable	students	non-chargeable	students	non-chargeable
<u>HOSPITAL</u>							
Cardiology	1.00						
Clin Lab - Immunology			6,219				\$ 114.16
Clin Lab - Infec Diseases	1.00		4,119,523				24,323.66
Clin Lab - Pathology	1.00		511,269				5,787.34
Data Processing	1.00		501,615				9,046.46
Pharmacy			8,006,546				26,057.57
HOSPITAL TOTAL	4.00		10,145,172				\$65,229.19
<u>CLINICS</u>							
	1.00		515,400				\$ 7,828.71
<u>OTHER CLINICS AND HOSP</u>							
	1.00		680,358				15,874.73
<u>CAMPUS</u>							
Aero and Astro			-0-				
Biosciences	2.00	3,035	286,747	135		624	\$ 62.40
Chemistry	1.00		176,223			6,343	3,617.73
Computer Science**	3.00		4,597,329			14,478	4,827.51
Law			-0-			62,854	41,210.20
Math	1.00		5,267			696	20,025.17
Physics			7,723			70	60.60
Psychology		867	28,093	51		2,954	98.36
Statistics	.50		5,886			978	428.00
CAMPUS TOTAL	7.50	3,902	4,773,552	186		363	662.08
<u>UNKNOWN SCRATCH***</u>							148.70
		216,629	2,139,515			192,170	\$46,057.10
<u>OTHER</u>							\$29,939.05
		20,736	474,076	161		\$4,450.82	
<u>USER TOTALS</u>	41.00	833,046	6,756,805	38,312		53	\$ 69.41
<u>ACME</u>	10.00		8,928,799****			24,992	\$11,306.27
						895,701	\$86,776.57
<u>GRAND TOTALS</u>	51.00	833,046	15,685,604	38,312		198,833	\$105,581.53
						477,736	\$190,358.10
						895,701	\$20,088.98

*Distribution is that of April 1973.

**Primarily the DENDRAL project, serving Genetics, Chemistry, and Computer Science Departments.

***Unknown users, mostly medical students.

****Of this total, 5,927,711 pageminutes were used by Operations to run the system.

GRAND TOTAL PAGES/INUTES: 38,041,218
GRAND TOTAL BLOCKS: 1,411,809

April 26, 1973

Number of Iner Projects
By Department and Category at April 16, 1973

Department/Division	Category 1	2	3	4	5	6	7	8	9	10	11	12	13	16	17	Total
MEDICAL SCHOOL																
Anesthesia	2	5	0	0	0	0	0	0	0	0	1	0	0	0	0	8
Biochemistry	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0	6
Community and Prev Med	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Biostatistics	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Dermatology	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Genetics	2	6	0	4	1	2	0	0	0	0	0	0	0	0	0	15
Gyn/OB	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Medical Microbiology	0	2	0	8	0	0	0	0	0	0	0	0	0	0	0	10
Medicine	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cardiology	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3
Clinical Pharmacology	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Hematology	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Immunology	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Infectious Diseases	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
Metabolism	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Nephrology	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Oncology	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Neurology	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
Pathology	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3
Pediatrics	0	2	0	2	0	1	0	0	0	0	0	0	0	0	0	5
Pharmacology	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	8
Physiology	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Psychiatry	2	13	0	4	0	0	0	0	0	0	0	0	0	0	0	19
Radiology	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diagnostic Radiology	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Nuclear Medicine	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Radiation Therapy	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Radiobiology	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Surgery	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Cardiovascular	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3
Ophthalmology	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Otolaryngology	1	5	0	0	0	0	0	0	0	0	1	0	0	0	0	6
Urology	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Admissions Committee	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Fleischmann Labs	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Joint Teaching and Research	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Regional Medical Program	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
MEDICAL SCHOOL TOTALS	15	107	0	25	2	3	0	0	0	0	2	0	0	0	0	153

1. Realtime, sponsored resch.
2. Non-realtime, sponsored resch.
3. Non-Stanford medical
- * 4. Student education
- * 5. Realtime, core resch.
- * 6. Non-realtime, core resch.
- * 7. ACME staff, excl. operations
8. Stanford Univ. Hospital
9. Stanford non-medical
- * 10. Realtime, pilot and pending proposal
- * 11. Non-realtime, " "
- * 12. Realtime, extended non-funded
- * 13. Non-realtime, extended non-funded
16. Negotiated rate, combination of core research and application
- * 17. ACME operations

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93
1

HOSPITAL	Category	1	2	3	4	5	6	7	8	9	10	11	12	13	16	17	Total
Clin Lab - Immunology		0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Clin Lab - Inf Dis		0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
Clin Lab Pathology		0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Data Processing		0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
Pharmacy		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
HOSPITAL TOTAL		0	0	0	0	0	0	0	7	0	0	0	0	0	1	0	8
CLINICS		1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
OTHER CLINICS AND HOSP																	
PAVAH		0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
State Univ. of NY		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Univ of Calif. at SF		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Palo Alto Med Rsch.		0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
OTHER CLINICS AND HOSP TOTAL		0	2	7	0	0	0	0	0	0	0	0	0	0	0	0	9
CAMPUS																	
Aero and Astro		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Biosciences		4	1	0	1	0	0	0	0	0	0	0	0	0	0	0	6
Chemistry		1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	4
Computer Science		0	2	0	0	9	0	0	0	0	0	0	0	0	0	0	11
Physics		0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	2
Psychology		0	0	0	1	0	0	0	0	6	0	0	0	0	0	0	7
Statistics		0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	3
CAMPUS TOTAL		5	7	0	2	11	0	0	0	9	0	0	0	0	0	0	34
UNKNOWN SCRATCH		0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
OTHER																	
Prentice Electronics		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Jung Institute		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Youth Opportunities Program		0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
SLAC		0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5
Carnegie		0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
OTHER TOTALS		0	0	2	1	0	0	0	0	6	0	0	0	0	0	0	9
USER TOTALS		21	116	9	29	13	3	0	8	15	0	2	0	0	1	0	217
ACME		0	0	0	0	0	0	46	0	0	0	0	0	0	0	6	52
GRAND TOTALS		21	116	9	29	13	3	46	8	15	0	2	0	0	1	6	269

ACME INCOME

April 17, 1972 to April 16, 1973

360/50 Income from Chargeable Users

	May	June	July	August	Sep	Oct	Nov	Dec	Jan	Feb	Mar	April	Total
1 - Realtime, sponsored research	\$ 6,739	\$ 7,798	\$ 7,018	\$ 5,362	\$ 4,712	\$ 4,133	\$ 2,996	\$ 2,336	\$ 1,970	\$ 2,582	\$ 2,385	\$ 2,337	\$ 50,368
2 - Non-realtime, sponsored research	14,973	14,574	13,118	13,259	11,663	12,801	14,524	11,430	10,119	12,074	11,596	11,214	151,345
3 - Non-Stanford, medical	2,127	1,413	1,547	2,262	1,719	1,513	500	1,445	398	459	477	391	14,251
8 - Stanford University Hospital and Clinics	1,686	1,769	1,682	2,102	2,079	2,224	2,592	4,436	3,830	4,700	4,304	4,219	35,623
9 - Stanford, non-medical	1,489	1,017	688	1,168	1,161	382	779	759	774	505	988	825	10,535
16 - Combination Core Research and Application	2,390	2,796	2,747	2,544	2,594	2,535	3,075	2,992	2,688	2,524	71	1	26,957
TOTAL	\$29,404	\$29,367	\$26,800	\$26,697	\$23,928	\$23,588	\$24,466	\$23,398	\$19,779	\$22,844	\$19,821	\$18,987	\$289,079

Income from Terminal and Misc Charges*

\$ 7,790	\$ 8,180	\$ 7,790	\$ 7,695	\$ 8,265	\$ 8,275	\$ 9,055	\$ 8,760	\$ 8,550	\$ 8,265	\$ 8,170	\$ 7,695	\$ 98,490
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*This income is not associated with the ACME Grant. It is an offset to cost incurred by the University for terminal rental, engineering services, and other miscellaneous services provided to the ACME community.

ACME INCOME

FY69 through FY73

	<u>360/50 Income to Grant</u>	<u>Clearing Account Income</u>
FY69 *	\$ 37,277	\$118,377
FY70	178,252	95,973
FY71	170,596	100,809
FY72	267,558	110,979
FY73 (est.)	260,000	100,000

*User charges instituted in March of 1969.

ACME UTILIZATION DATA

FY70 - FY73

As measured by number of accounts (staff and operations accounts excluded):

	<u># of accounts</u>	<u>% change</u>
March 1970:	198	
March 1971	210	+6.0%
March 1972	224	+6.6%
March 1973	214	-4.4%

As measured by income:

	<u>FY70^b</u>	<u>FY71</u>	<u>FY72^c</u>	<u>9 mo. Actual</u>	<u>FY73 Total Estimated</u>
360/50 services	\$178,252	\$170,596	\$267,558	\$203,508	\$260,000
% change		-4.3%	+56.8%		-2.9%
terminal rental ^a	98,973	100,809	110,979	74,730	100,000
% change		+1.8%	+10.0%		-9.9%
total	\$277,225	\$271,405	\$378,537	\$278,238	\$360,000
% change		-2.1%	+39.4%		-4.9%

^aIncome provides for terminal rental, services best provided by a central facility, and some recharges for engineering services.

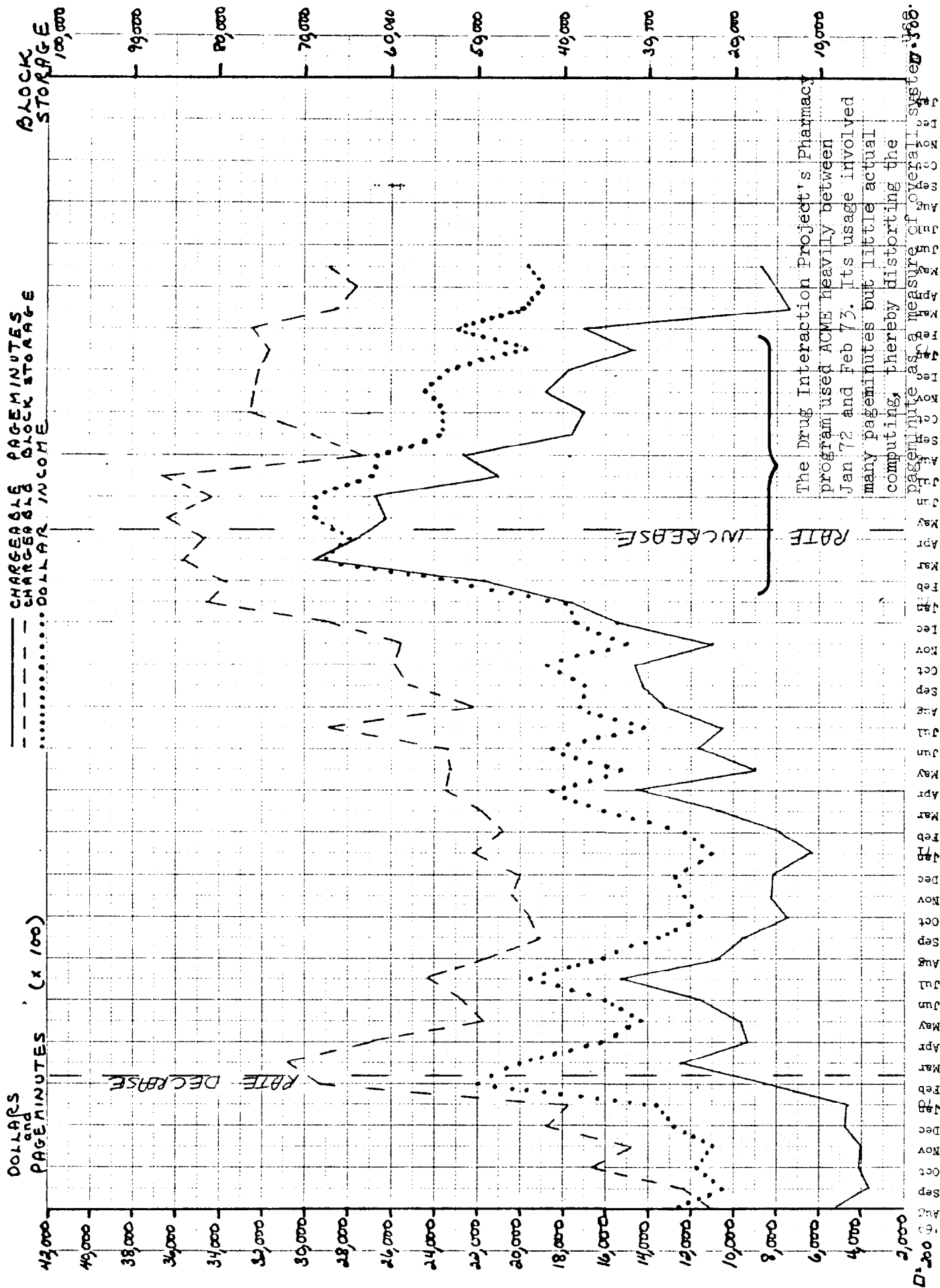
^bRate reduction introduced in February 1970.

^cRate increase introduced in May 1972.

As measured by timesharing units:

<u>Six-Month Period Ending:</u>	<u>Pageminutes x 10⁶ Adjusted to Reflect Impact of Faster Memories after Nov. 1971^d</u>	<u>% Change</u>
January 1971	1.50	
July 1971	1.45	-3.4%
January 1972	1.29	-1.1%
July 1972	1.95	+51.1%
January 1973	1.69	-1.3%

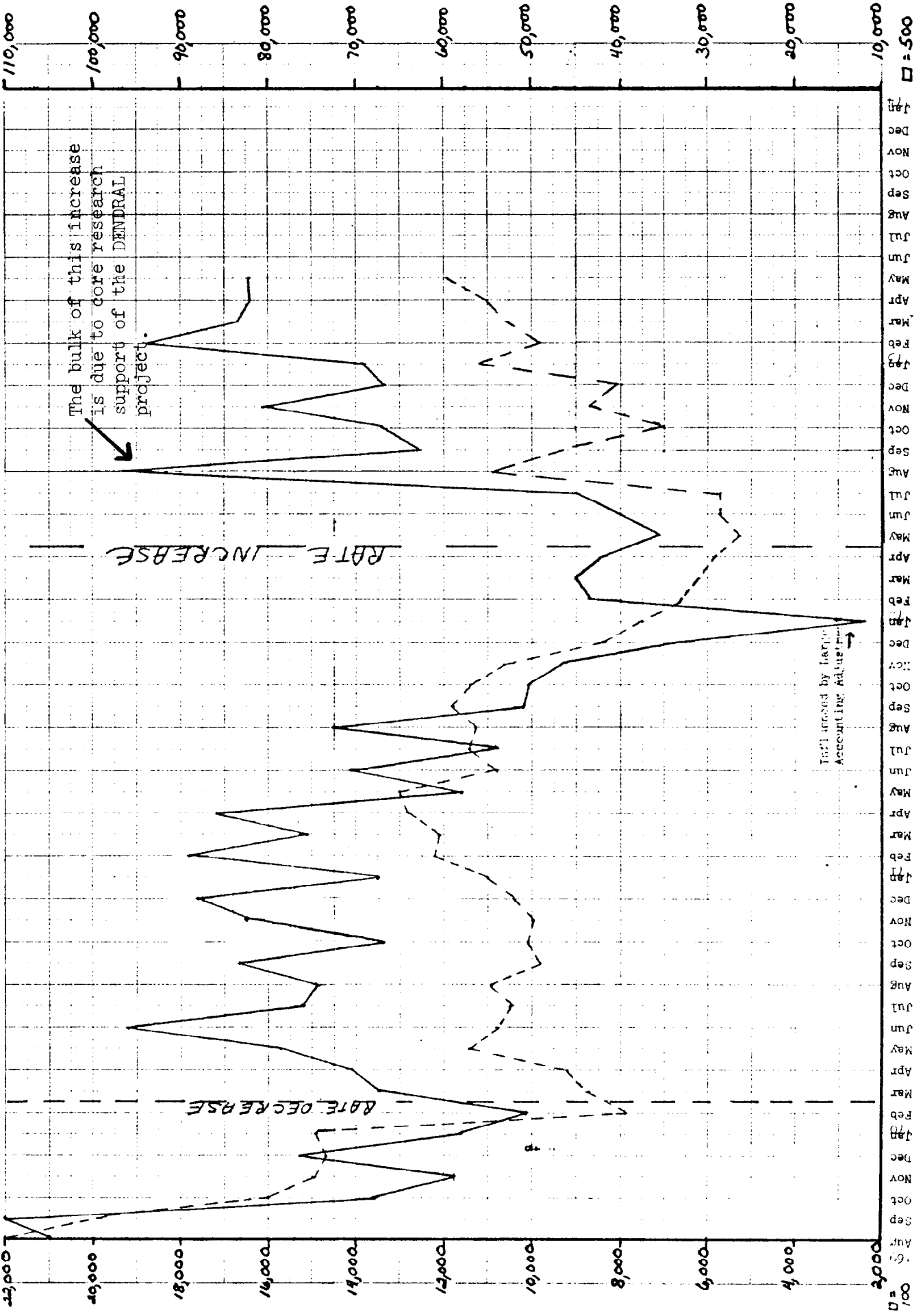
^dOne pageminute represents occupancy of 4k bytes of memory for one minute.



NON-CHARGEABLE PAGE MINUTES
NON-CHARGEABLE BLOCK STORAGE

BLOCK STORAGE

PAGE MINUTES (x 100)



The bulk of this increase is due to core research support of the DENDRAL project.

↑
Large Accounting Adjustment

